

### REMARKS

Claims 1-3 and 6-9 stand rejected as anticipated by Schafer DE 2800630. To the extent that this rejection would be applied to claims as presently amended, such rejection is traversed for the reasons following.

Schafer discloses a piston 8 having a conical valve seat and a valve body 11 having a conical surface which is cut at the same angle as the valve seat, so that the closing surfaces meet over a two-dimensional area, thereby uniformly distributing the closing force. If the closing surfaces are slightly divergent, the sealing is not reliably ensured.

In contrast, the valve seat surface according to the present invention is a circular surface, so that linear contact is made. This assumes a high contact force for better sealing. Note that linear, as used here, means "essentially one-dimensional", and is so defined in the specification. "Circular" means "of or pertaining to a circle" where "circle" means "a plane curve everywhere equidistant from a given fixed point". These are the respective first definitions in the American Heritage Dictionary, and are the definitions intended here. DE 2800630 does not disclose a valve seat surface which is "a plane curve everywhere equidistant from a fixed point".

Newly submitted claim 11 narrows claim 2 by reciting the clearance between the guide surface and the valve body, as described at page 9, lines 5-9.

Newly submitted claims 12-14 describe the particular geometry which provides the circular valve seat.

The only secondary reference is Funkhouser U.S. 2,458,157, which was cited against claim 4. However Funkhouser neither discloses nor suggests the features of claim 1 as presently amended.

The claims as amended being definite and patentable over the art of record, withdrawal of the rejections and early allowance are solicited. If any objections remain, a call to the undersigned is requested.

It is believed that no fees or charges are required at this time in connection with the present application; however, if any fees or charges are required at this time, they may be charged to our Patent and Trademark Office Deposit Account No. 03-2412.

Respectfully submitted,

COHEN, PONTANI, LIEBERMAN & PAVANE

By 

F. Brice Faller  
Reg. No. 29,532  
551 Fifth Avenue, Suite 1210  
New York, New York 10176  
(212) 687-2770

Dated: May 3, 2004